

IN THE DRAWINGS:

Submitted herewith are eight replacement sheets of drawing containing Figs. 1-8 which omit the non-English language wording and in which Fig. 7 has been labeled "Prior Art".

REMARKS

In the Office Action mailed January 5, 2009, claims 5-11, 13 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over US 6,599,108 to Yamashita in view of US 3,877,546 to Shrader. Claim 13 was objected to because of an informality, and appropriate correction was required. Claim 12 was objected to as being dependent upon a rejected base claim and was otherwise indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The drawings were objected to because of non-English wording and because Fig. 7 does not include the legend "Prior Art" and appropriate correction was required. The abstract was objected to as being too long and containing multiple paragraphs, and correction was required. Claims 1-4 were withdrawn from further consideration as being directed to a non-elected invention.

Applicants and applicants' attorney acknowledge with appreciation the indication of allowable subject matter concerning claim 12 and for the Examiner pointing out informalities that require correction.

In accordance with this response, claims 5, 12 and 13 have been amended, claim 1-4 and 11 have been canceled and claims 15-21 newly added. The specification has been amended to correct an informality. Replacement drawings have been

submitted to overcome the drawing objections. A new abstract has also been added to overcome the objections to the original abstract.

Independent claim 5 relates to a vacuum pump having a thread pump stator that supports a pump case, a base that supports the thread pump stator, a stator column formed integrally with the base, and a cooling water pipe buried in the wall of the stator column, wherein one end of the cooling water pipe is branched into a plurality of water inlet ports and another end of the cooling water pipe is branched into a plurality of water outlet ports. The combined teachings of Yamashita and Shrader do not disclose or suggest the claimed vacuum pump.

Yamashita discloses a vacuum pump but, as acknowledged by the Examiner, does not teach a cooling water pipe buried in the stator. As to this shortcoming of Yamashita, the Examiner cites Shrader as teaching a vacuum pump having a stator column and a cooling water pipe 119 buried in the stator column. According to the statement of rejection, it would have been obvious to one of ordinary skill in the art to bury a cooling water pipe as taught by Shrader in the stator column of Yamashita in order to provide cooling to the stator column. With respect to claim 11, which recites that the cooling water pipe has a branched water inlet port and a branched water outlet port, the Examiner contends that

Shrader teaches a branched water inlet port "in that the inlet line 119 branches in two directions into the recess 117." Applicants respectfully disagree.

Shrader discloses a coolant inlet passage 119 that extends from a coolant inlet fixture 121 to an annular recess 117 that surrounds a water jacket 105 to define therebetween an annular chamber through which cooling water circulates and exits through a coolant return passage (not shown) (column 3, lines 20-29). There is nothing in the disclosure of Shrader that suggests that the coolant inlet passage 119 "branches in two directions into the recessed 117" as contended by the Examiner. To the contrary, as clearly shown in Fig. 1 of Shrader, the coolant inlet passage 119 is not branched at either end but instead constitutes a straight-line connection between the fixture 121 and the annular recess 117. Thus even if Yamashita were modified in view of Shrader in the manner proposed in the statement of rejection, the modified vacuum pump of Yamashita would not have a buried cooling water pipe having one end branched into a plurality of water inlet ports and another end branched into a plurality of water outlet ports, as recited in independent claim 5.

Dependent claims 6-10 and 13-14 depend on claim 5 and are likewise patentable over Yamashita in combination with Shrader.

Claim 12 depends on claim 5 and, as indicated by the Examiner, patentably distinguishes over Yamashita in combination with Shrader.

New independent claim 15 relates to a vacuum pump having a stator column formed integrally with a base, and a cooling water pipe buried in the wall of the stator column, wherein one end of the cooling water pipe is branched into a plurality of water inlet ports and another end of the cooling water pipe is branched into a plurality of water outlet ports. As discussed above, the combination of Yamashita and Shrader does not disclose or suggest a vacuum pump having a buried cooling water pipe as defined in claim 15.

Claims 16-19 depend on claim 15 and likewise patentably distinguish over Yamashita in combination with Shrader.

New independent claim 20 relates to a vacuum pump having a stator column, and a cooling water pipe buried in a wall of the stator column, wherein the cooling water pipe has a water inlet end portion branching into a plurality of water inlet ports and a water outlet end portion branching into a plurality of water outlet ports. Shrader does not disclose a cooling water pipe having branched water inlet and outlet end portions that respectively branch into a plurality of water inlet ports and a plurality of water outlet ports, as recited

in claim 20. In fact, as noted above, Shrader does not disclose a cooling water pipe that is branched at either end.

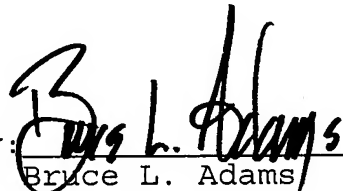
Dependent claim 21 recites that one branched water inlet port and one branched water outlet port open to the outside of the vacuum pump at a side surface of the stator column, and another branched water inlet port and another branched water outlet port open to the outside of the vacuum pump at an underside of the stator column. No such arrangement is disclosed by Shrader.

Thus Yamashita in combination with Shrader does not disclose or suggest the vacuum pump recited in claims 20 and 21.

As all objections and grounds of rejection have been overcome, the application is now believed to be in allowable form. Accordingly, favorable reconsideration and passage of the application to issue are respectfully requested.

Respectfully submitted,

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MAILING CERTIFICATE

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April 23, 2009
Date